(positive or negative) and any other force—epinasty, hyponasty, positive or negative heliotropism,—it is clear that, geotropism being destroyed by the rotation, the balance cannot be maintained." The experiments, varied in many ways, and with arrangements to eliminate epinastic and hyponastic tendencies, plainly bring out the conclusion "that the power which leaves have of placing themselves at right-angles to the incident light is due to a specialized sensitiveness to light, which is able to regulate or govern the action of other external forces, such as gravitation, or of internal forces, such as epinasty."—A. G. *in Am. Jour. Sci.*

**Ranunculus.**—I invite attention, this season, to the various forms which in this country pass under the name of *Ranunculus repens*, L. I suspect that the European species, one which merits the specific name, is not indigenous to the United States, but is occasionally met with as a naturalized plant. The "third form" with "spotted leaves," mentioned in Mr. Ward's new Flora of Washington, would seem to be of this species. Does the low and early-flowering form of our common species make runners later in the season? And do the larger forms of low ground freely produce prostrate shoots and do these take roots?"—A. GRAY.

**Botanizing on Comanche's Peak, Texas.**—This high bluff is one of the most remarkable features of Central Texas. Situated six miles south of Granbury, it towers above the beautiful valley of the Brazos like an immense citadel, its height above the valley being estimated at six hundred feet. It is seen from long distances in every direction and from its top a most extensive view is obtained. Like an isolated sentinel, it seems to be the only remnant of a vast plateau that has been washed away. Belonging to the Cretaceous Period, its rocks full of interesting marine fossils have characterized one group of that period, bearing the name of *Comanche's Peak Group.*

In September, 1881, my wife and I visited the peak on a botanizing expedition, but the season was not favorable except for a few grasses which I will mention below. The *Euphorbia Fendleri* and *Paronychia Jamesii* were the only interesting plants in bloom. On the rocks which had fallen from the top of the peak we noticed some *Solidago nemoralis* in bud, but most of the species were detected by means of leaves, or dried stems bearing seeds; such as *Arenaria Michauxii*, *Erythræa Texensis*, *E. Beyrichii*, and *Sabbatia campestris.* We looked eagerly for ferns, but only two were obtained, *Pellæa atropurpurea* and *Notholæna dealbata*, of the latter only a small specimen. The pretty *Cereus pectinatus* is also growing there, being, I think, one of its more northeastern stations.

The grasses were; 1, a *Bouteloua* much resembling *oligostachya* but with culms 2 or 3 feet high and that in poor rocky soil; 2, *Leptostachya dubia*; 3, *Tricuspis* (probably *mutica* of Torrey); 4,

*Aristida*, probably a new species. The last three species were growing on rocks on the very top of the peak. The first is abundant in rocky prairies near the base of the mountains. I have sent these grasses to Dr. Vasey of the Department of Agriculture, and he has not yet reported definitely about them.

The sides and part of the top of this great bluff are covered with a thick growth of mountain cedar (*Juniperus occidentalis*, var. *conjungens*), red oak (*Quercus rubra*), live oak (*Q. virens*), and shin oak (*Q. sinuata*, var.?). Among these we noticed the following shrubs; *Celtis reticulata*, *Ptelea trifoliata*, var. *mollis*, *Morus parvifolia*, *Rhus trilobata*,and the curious evergreen *Berberis trifoliata*.

I have no doubt that the locality is very rich in plants, and the botanist who will visit it in a good season will be well repaid for his trouble, besides the pleasure of viewing beautiful landscapes.

The settlers about the peak have assured us that they are generally favored with more or less rain while the country 8 or 10 miles distant is suffering from drouth. Some of our own observations seem to corroborate this statement.

In crossing the Brazos 6 miles from the peak we found on the sandy banks of that river fine blooming specimens of the following species: *Heliotropium convolvulaceum*, *Euphorbia hexagona*, *Dalea lanata*,*Aster spinosus*,*Cycloloma platyphylla*, and *Enslenia albida*.—J. REVERCHON, *Dallas, Texas.*

**North American Grasses.**—In the April *Naturalist* Dr Vasey gives some notes on N. Am. Grasses,based on Mr. Bentham's recent paper on *Gramineæ*. As all botanists are interested in the proposed changes we will note a few of those that most concern us. *Polypogon* is placed under the *Panicaceæ*. *Thurbera* is a new genus made to include two species of hitherto doubtful relations, and most happily named. *Sorghum nutans* is not *Sorghum* at all, but *Chrysopogon*. *Sorghum* includes only the cultivated *S. vulgare* and *S. Halapense*. *Muhlenbergia* is made to include *Vaseya*. *Sporobolus* includes *Vilfa*. In *Deyeuxia* are included all our species of *Calamagrostis* except two or three which go into *Ammophila*. All our native species of *Aira* are referred to *Deschampsia*. *Lepturus paniculatus*, Nutt., is referred to *Schedonnardus*. *Eleusine* includes *Dactyloctenium*. *Leptochloa fascicularis* again appears as *Diplachen fascicularis*. *Triodia* includes *Tricuspis* and *Uralepis*. *Triplalis* appears with two N. Am. species. Our *Brizopyrum* is *Distlichiss*, Raf. *Briza* includes *Calotheca*. *Atropis* is referred to *Glyceria*. *Bromus* includes *Ceratochloa*. Our native *Triticums* are referred to *Agropyrum*. *Gymnostichum* is referred to *Asprella*.